

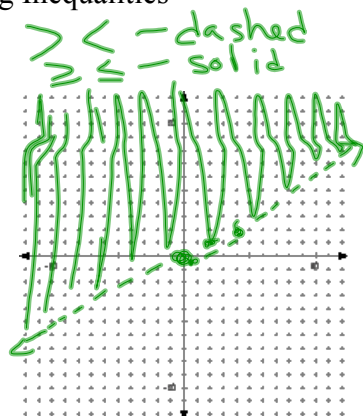
## 2-7 Graphing Inequalities

Example 1

Solve for  $y$ 

$$2y > x$$

$$y > \frac{1}{2}x$$

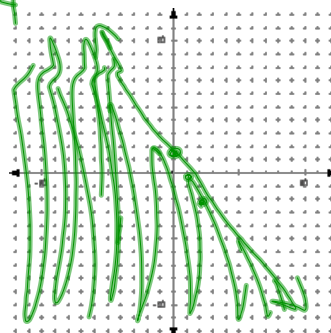


Example 2

$$4x + 2y \leq 4$$

$$2y \leq -4x + 4$$

$$y \leq -2x + 2$$

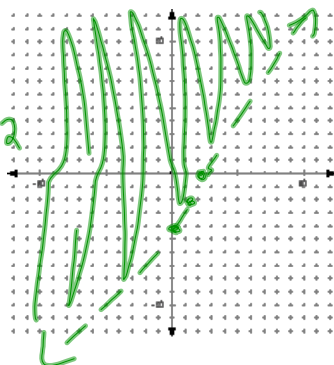


Example 3

$$6x - 3y < 12$$

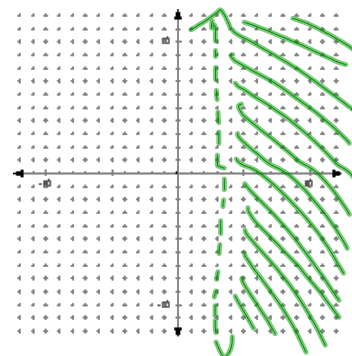
$$-3y < -6x + 12$$

$$y > 2x - 4$$



Example 4

$$x > 3$$

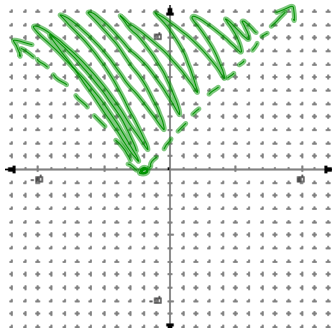


Absolute Value

Example

$$y > |x + 2|$$

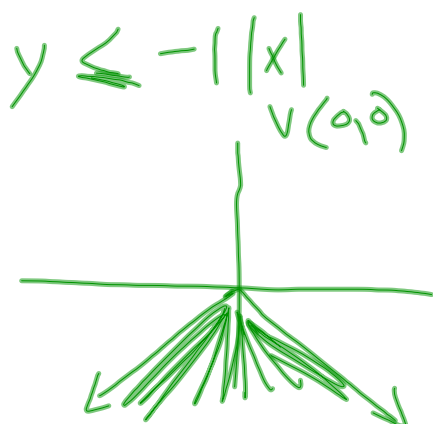
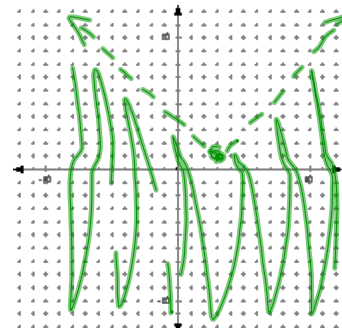
$$V(-2, 0)$$



Example

$$y < |x - 3| + 1$$

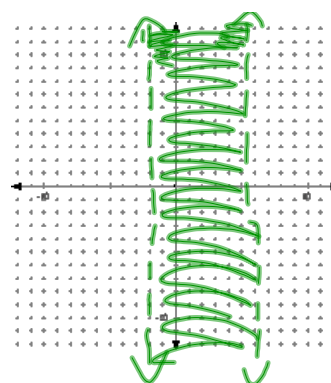
$$V(3, 1)$$



Example

$$-2 < x < 5$$

$$\begin{aligned} -2 < x \\ \text{AND} \\ x < 5 \end{aligned}$$



**SHOPPING** For Exercises 10–12, use the following information.

Gwen wants to buy some cassettes that cost \$10 each and some CDs that cost \$13 each. She has \$40 to spend.

10. Write an inequality to represent the situation, where  $c$  is the number of cassettes she buys and  $d$  is the number of CDs.

11. Graph the inequality.

12. Can she buy 3 cassettes and 2 CDs? Explain.

Open to page 98  
#s 10-12

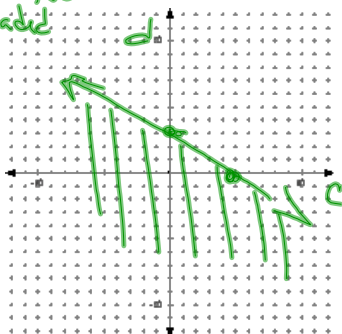
It is not in shaded region

NO

$$10c + 13d \leq 40$$

$(0, 3\frac{1}{3})$

$(4, 0)$



HW

p 98 14, 16, 20, 23, 24, 26-28, 35-37

Graph Paper